



DCI-111

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<110> Rogers, Elizabeth

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cgatttctggc	ttgttcgttt	gctgagaagg	actataacaa	agtgactgct	ggttgcattccc	1370
gtgttctaca	gatgggtttt	gtgttaggac	ttggactgtc	cgtttttgtt	ggactagggc	1430
tctacttttg	tgccggagtt	ttctccaagg	accctgctgt	tattcacctc	atggccatcg	1490
gaataccggt	tatagcagca	acgcagccaa	taaactctct	cgcctttgta	ttggatggag	1550
tcaattttgg	agcatctgat	tttgcttaca	ctgcatactc	catgggtggga	gtggcggcca	1610
taagcattgc	agcagtaata	tatatggcaa	agaccaatgg	tttcatagga	atatggatag	1670
ctcttacaat	ctatatggct	ctccgggcta	ttactggaat	tgccaggatg	gcgacaggaa	1730
ctggaccgtg	gaggttcttg	cgtggacgat	catcctcttc	atcttcctag	gacttagttt	1790
atttataacg	agttgcatct	cttcttcctt	cttcggtttt	gtttatgggt	cttgtgtttg	1850
tttttcaaca	ttttgttcga	gagaccgtta	tcatattatc	agtttcacat	aaataatgca	1910
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 <212> PRT
 <213> Arabidopsis thaliana

<400> 9

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		20						25					30		
Thr	Gly	Arg	Glu	Ile	Leu	Gly	Ile	Ala	Phe	Pro	Ala	Ala	Leu	Ala	Leu
		35					40					45			
Ala	Ala	Asp	Pro	Ile	Ala	Ser	Leu	Ile	Asp	Thr	Ala	Phe	Val	Gly	Arg
	50					55					60				
Leu	Gly	Ala	Val	Gln	Leu	Ala	Ala	Val	Gly	Val	Ser	Ile	Ala	Ile	Phe
65					70				75					80	
Asn	Gln	Ala	Ser	Arg	Ile	Thr	Ile	Phe	Pro	Leu	Val	Ser	Leu	Thr	Thr
			85					90					95		
Ser	Phe	Val	Ala	Glu	Glu	Asp	Thr	Met	Glu	Lys	Met	Lys	Glu	Glu	Ala
		100						105					110		
Asn	Lys	Ala	Asn	Leu	Val	His	Ala	Glu	Thr	Ile	Leu	Val	Gln	Asp	Ser
		115					120					125			
Leu	Glu	Lys	Gly	Ile	Ser	Ser	Pro	Thr	Ser	Asn	Asp	Thr	Asn	Gln	Pro
		130				135					140				
Gln	Gln	Pro	Pro	Ala	Pro	Asp	Thr	Lys	Ser	Asn	Ser	Gly	Asn	Lys	Ser
145					150					155					160
Asn	Lys	Lys	Glu	Lys	Arg	Thr	Ile	Arg	Thr	Ala	Ser	Thr	Ala	Met	Ile
			165					170						175	
Leu	Gly	Leu	Ile	Leu	Gly	Leu	Val	Gln	Ala	Ile	Phe	Leu	Ile	Phe	Ser
		180						185					190		
Ser	Lys	Leu	Leu	Leu	Gly	Val	Met	Gly	Val	Lys	Pro	Asn	Ser	Pro	Met
		195				200						205			
Leu	Ser	Pro	Ala	His	Lys	Tyr	Leu	Ser	Ile	Arg	Ala	Leu	Gly	Ala	Pro
	210					215					220				
Ala	Leu	Leu	Leu	Ser	Leu	Ala	Met	Gln	Gly	Ile	Phe	Arg	Gly	Phe	Lys
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Asp	Thr	Lys	Thr	Pro	Leu	Phe	Ala	Thr	Asp	Asn					
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 <212> PRT
 <213> Arabidopsis thaliana

<400> 10

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		20						25					30		
Thr	Gly	Arg	Glu	Ile	Leu	Gly	Ile	Ala	Phe	Pro	Ala	Ala	Leu	Ala	Leu
		35					40					45			
Ala	Ala	Asp	Pro	Ile	Ala	Ser	Leu	Ile	Asp	Thr	Ala	Phe	Val	Gly	Arg
		50				55					60				

DCI-111
 65 Leu Gly Ala Val Gln Leu Ala Ala Val Gly Val Ser Ile Ala Ile Phe
 70 Asn Gln Ala Ser Arg Ile Thr Ile Phe Pro Leu Val Ser Leu Thr Thr
 85 Ser Phe Val Ala Glu Glu Asp Thr Met Glu Lys Met Lys Glu Ala
 100 Asn Lys Ala Asn Leu Val His Ala Glu Thr Ile Leu Val Gln Asp Ser
 115 Leu Glu Lys Gly Ile Ser Ser Pro Thr Ser Asn Asp Thr Asn Gln Pro
 130 Gln Gln Pro Pro Ala Pro Asp Thr Lys Ser Asn Ser Gly Asn Lys Ser
 145 Asn Lys Lys Glu Lys Arg Thr Ile Arg Thr Ala Ser Thr Ala Met Ile
 165 Leu Gly Leu Ile Leu Gly Leu Val Gln Ala Ile Phe Leu Ile Phe Ser
 180 Ser Lys Leu Leu Leu Gly Val Met Gly Val Lys Pro Asn Ser Pro Met
 195 Leu Ser Pro Ala His Lys Tyr Leu Ser Ile Arg Ala Leu Gly Ala Pro
 210 Ala Leu Leu Leu Ser Leu Ala Met Gln Gly Ile Phe Arg Gly Phe Lys
 225 Asp Thr Lys Thr Pro Leu Phe Ala Thr Val Val Ala Asp Val Ile Asn
 245 Ile Val Leu Asp Pro Ile Phe Ile Phe Val Leu Arg Leu Gly Ile Ile
 260 Gly Ala Ala Ile Ala His Val Ile Ser Gln Tyr Phe Met Thr Leu Ile
 275 Leu Phe Val Phe Leu Ala Lys Lys Val Asn Leu Ile Pro Pro Asn Phe
 290 Gly Asp Leu Gln Phe Gly Arg Phe Leu Lys Asn Gly Leu Leu Leu Leu
 305 Ala Arg Thr Ile Ala Val Thr Phe Cys Gln Thr Leu Ala Ala Ala Met
 325 Ala Ala Arg Leu Gly Thr Thr Pro Met Ala Ala Phe Gln Ile Cys Leu
 340 Gln Val Trp Leu Thr Ser Ser Leu Leu Asn Asp Gly Leu Ala Val Ala
 355 Gly Gln Ala Leu Ala Cys Ser Phe Ala Glu Lys Asp Tyr Asn Lys Val
 370 Thr Ala Val Ala Ser Arg Val Leu Gln Met Gly Phe Val Leu Gly Leu
 385 Gly Leu Ser Val Phe Val Gly Leu Gly Leu Tyr Phe Gly Ala Gly Val
 405 Phe Ser Lys Asp Pro Ala Val Ile His Leu Met Ala Ile Gly Ile Pro
 420 Phe Ala Ala Thr Gln Pro Ile Asn Ser Leu Ala Phe Val Leu Asp Gly
 435 Val Asn Phe Gly Ala Ser Asp Phe Ala Tyr Thr Ala Tyr Ser Met Val
 450 Gly Val Ala Ala Ile Ser Ala Ala Val Ile Tyr Met Ala Lys Thr Asn
 465 Gly Phe Ile Gly Ile Trp Ile Ala Leu Thr Ile Tyr Met Ala Leu Arg
 485 Ala Ile Thr Gly Ile Ala Arg Met Ala Thr Gly Thr Gly Pro Trp Arg
 500 Phe Leu Arg Gly Arg Ser Ser Ser Ser Ser Ser
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 <212> PRT
 <213> Arabidopsis thaliana

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 <211> 501
 <212> PRT
 <213> Arabidopsis thaliana

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 35 40 45
 Asp Pro Ile Ala Ser Leu Val Asp Thr Ala Phe Ile Gly Gln Ile Gly
 50 55 60
 Pro Val Glu Leu Ala Ala Val Gly Val Ser Ile Ala Leu Phe Asn Gln
 65 70 75 80
 Val Ser Arg Ile Ala Ile Phe Pro Leu Val Ser Ile Thr Thr Ser Phe
 85 90 95
 Val Ala Glu Glu Asp Ala Cys Ser Ser Gln Gln Asp Thr Val Arg Asp
 100 105 110
 His Lys Glu Cys Ile Glu Ile Gly Ile Asn Asn Pro Thr Glu Glu Thr
 115 120 125
 Ile Glu Leu Ile Pro Glu Lys His Lys Asp Ser Leu Ser Asp Glu Phe
 130 135 140
 Lys Thr Ser Ser Ser Ile Phe Ser Ile Ser Lys Pro Pro Ala Lys Lys
 145 150 155 160
 Arg Asn Ile Pro Ser Ala Ser Ser Ala Leu Ile Ile Gly Gly Val Leu
 165 170 175
 Gly Leu Phe Gln Ala Val Phe Leu Ile Ser Ala Ala Lys Pro Leu Leu
 180 185 190
 Ser Phe Met Gly Val Lys His Asp Ser Pro Met Met Arg Pro Ser Gln
 195 200 205
 Arg Tyr Leu Ser Leu Arg Ser Leu Gly Ala Pro Ala Val Leu Leu Ser
 210 215 220
 Leu Ala Ala Gln Gly Val Phe Arg Gly Phe Lys Asp Thr Thr Thr Pro
 225 230 235 240
 Leu Phe Ala Thr Val Ile Gly Asp Val Thr Asn Ile Ile Leu Asp Pro
 245 250 255
 Ile Phe Ile Phe Val Phe Arg Leu Gly Val Thr Gly Ala Ala Thr Ala
 260 265 270
 His Val Ile Ser Gln Tyr Leu Met Cys Gly Ile Leu Leu Trp Lys Leu
 275 280 285
 Met Gly Gln Val Asp Ile Phe Asn Met Ser Thr Lys His Leu Gln Phe
 290 295 300
 Cys Arg Phe Met Lys Asn Gly Phe Leu Leu Leu Met Arg Val Ile Ala
 305 310 315 320
 Val Thr Phe Cys Val Thr Leu Ser Ala Ser Leu Ala Ala Arg Glu Gly
 325 330 335
 Ser Thr Ser Met Ala Ala Phe Gln Val Cys Leu Gln Val Trp Leu Ala
 340 345 350
 Thr Ser Leu Leu Ala Asp Gly Tyr Ala Val Ala Gly Gln Ala Ile Leu
 355 360 365
 Ala Ser Ala Phe Ala Lys Lys Asp Tyr Lys Arg Ala Ala Thr Ala
 370 375 380
 Ser Arg Val Leu Gln Leu Gly Leu Val Leu Gly Phe Val Leu Ala Val
 385 390 395 400
 Ile Leu Gly Ala Gly Leu His Phe Gly Ala Arg Val Phe Thr Lys Asp
 405 410 415
 Asp Lys Val Leu His Leu Ile Ser Ile Gly Leu Pro Phe Val Ala Gly
 420 425 430
 Thr Gln Pro Ile Asn Ala Leu Ala Phe Val Phe Asp Gly Val Asn Phe
 435 440 445
 Gly Ala Ser Asp Phe Gly Tyr Ala Ala Ala Ser Leu Val Met Val Ala
 450 455 460
 Ile Val Ser Ile Leu Cys Leu Leu Phe Leu Ser Ser Thr His Gly Phe
 465 470 475 480
 Ile Gly Leu Trp Phe Gly Leu Thr Ile Tyr Met Ser Leu Arg Ala Ala

DCI-111 485 16 495
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 <211> 479
 <212> PRT
 <213> Arabidopsis thaliana

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 Ile Lys Arg Glu Leu val Met Leu Ser Leu Pro Ala Ile Ala Gly Gln
 35 40 45
 Ala Ile Asp Pro Leu Thr Leu Leu Met Glu Thr Ala Tyr Ile Gly Arg
 50 55 60
 Leu Gly Ser val Glu Leu Gly Ser Ala Gly val Ser Met Ala Ile Phe
 65 70 75 80
 Asn Thr Ile Ser Lys Leu Phe Asn Ile Pro Leu Leu Ser val Ala Thr
 85 90 95
 Ser Phe val Ala Glu Asp Ile Ala Lys Ile Ala Ala Gln Asp Leu Ala
 100 105 110
 Ser Glu Asp Ser Gln Ser Asp Ile Pro Ser Gln Gly Leu Pro Glu Arg
 115 120 125
 Lys Gln Leu Ser Ser val Ser Thr Ala Leu val Leu Ala Ile Gly Ile
 130 135 140
 Gly Ile Phe Glu Ala Leu Ala Leu Ser Leu Ala Ser Gly Pro Phe Leu
 145 150 155 160
 Arg Leu Met Gly Ile Gln Ser val Ser Ser val Gln Arg Met Ser Glu
 165 170 175
 Met Phe Ile Pro Ala Arg Gln Phe Leu val Leu Arg Ala Leu Gly Ala
 180 185 190
 Pro Ala Tyr val val Ser Leu Ala Leu Gln Gly Ile Phe Arg Gly Phe
 195 200 205
 Lys Asp Thr Lys Thr Pro val Tyr Cys Leu val Leu Ser Phe Pro Asn
 210 215 220
 Phe His Asn Ser Gly Ile Gly Asn Phe Leu Ala val Phe Leu Phe Pro
 225 230 235
 Leu Phe Ile Tyr Lys Phe Arg Met Gly val Ala Gly Ala Ala Ile Ser
 245 250 255
 Ser val Ile Ser Gln Met val Leu Asn Pro Phe Pro Leu Ile His Arg
 260 265 270
 Tyr Thr val Ala Ile Leu Met Leu Ile Leu Leu Asn Lys Arg val Ile
 275 280 285
 Leu Leu Pro Pro Lys Ile Gly Ser Leu Lys Phe Gly Asp Tyr Leu Lys
 290 295 300
 Ser Gly Gly Phe val Leu Gly Arg Thr Leu Ser val Leu val Thr Met
 305 310 315 320
 Thr val Ala Thr Ser Met Ala Ala Arg Gln Gly val Phe Ala Met Ala
 325 330 335
 Ala His Gln Ile Cys Met Gln val Trp Leu Ala val Ser Leu Leu Thr
 340 345 350
 Asp Ala Leu Ala Ser Ser Gly Gln Ala Leu Ile Ala Ser Ser Ala Ser
 355 360 365
 Lys Arg Asp Phe Glu Gly val Lys Glu Phe Ile Phe Thr Phe Trp Gly
 370 375 380
 Cys Tyr Leu Ile Ser Cys Tyr Ile Tyr Ile Tyr Arg Glu Arg Cys Asn
 385 390 395 400
 val Phe Gly val val Gln Ile Gly val val Thr Gly Ile Ala Leu Ala
 405 410 415
 Ile val Leu Gly Met Ser Phe Ser Ser Ile Ala Asp Gly Gly Gly Arg
 420 425 430
 Asn Ile Ile Ser val His Ala val Cys Thr Gly Arg val Gly Ala Lys
 435 440 445
 Trp ser val Gly Gly Ala Glu His val His Gly Ile Ala Asp Gly Gly

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 465 470 475 460
 Ser Ile Tyr Lys

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 <212> PRT
 <213> Arabidopsis thaliana

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 Lys Val Ile Asp Val Glu Glu Ala Lys Ala Gln Met Ile Tyr Ser Leu
 35 40 45
 Pro Met Ile Leu Thr Asn Val Phe Tyr Tyr Cys Ile Pro Ile Thr Ser
 50 55 60
 Val Met Phe Ala Ser His Leu Gly Gln Leu Glu Leu Ala Gly Ala Thr
 65 70 75 80
 Leu Ala Asn Ser Trp Ala Thr Val Ser Gly Phe Ala Phe Met Val Gly
 85 90 95
 Leu Ser Gly Ser Leu Glu Thr Leu Cys Gly Gln Gly Phe Gly Ala Lys
 100 105 110
 Arg Tyr Arg Met Leu Gly Val His Leu Gln Ser Ser Cys Ile Val Ser
 115 120 125
 Leu Val Phe Ser Ile Leu Ile Thr Ile Phe Trp Phe Thr Glu Ser
 130 135 140
 Ile Phe Gly Leu Leu Arg Gln Asp Pro Ser Ile Ser Lys Gln Ala Ala
 145 150 155 160
 Leu Tyr Met Lys Tyr Gln Ala Pro Gly Leu Leu Ala Tyr Gly Phe Leu
 165 170 175
 Gln Asn Ile Leu Arg Phe Cys Gln Thr Gln Ser Ile Ile Ala Pro Leu
 180 185 190
 Val Ile Phe Ser Phe Val Pro Leu Val Ile Asn Ile Ala Thr Ala Tyr
 195 200 205
 Val Leu Val Tyr Val Ala Gly Leu Gly Phe Ile Gly Ala Pro Ile Ala
 210 215 220
 Thr Ser Ile Ser Leu Trp Ile Ala Phe Leu Ser Leu Gly Thr Tyr Val
 225 230 235 240
 Met Cys Ser Glu Lys Phe Lys Glu Thr Trp Thr Gly Phe Ser Leu Glu
 245 250 255
 Ser Phe Arg Tyr Ile Val Ile Asn Leu Thr Leu Ser Leu Pro Ser Ala
 260 265 270
 Ala Met Leu Lys Arg Leu Tyr Cys Cys Asn Ser Leu Glu Tyr Trp Ala
 275 280 285
 Phe Glu Ile Leu Val Phe Leu Ala Gly Val Met Pro Asn Pro Glu Ile
 290 295 300
 Asn Thr Ser Leu Val Ala Ile Cys Val Asn Thr Glu Ala Ile Ser Tyr
 305 310 315 320
 Met Leu Thr Tyr Gly Leu Ser Ala Ala Ala Ser Thr Arg Val Ser Asn
 325 330 335
 Glu Leu Gly Ala Gly Asn Val Lys Gly Ala Lys Lys Ala Thr Ser Val
 340 345 350
 Ser Val Lys Leu Ser Leu Val Leu Ala Leu Gly Val Val Ile Val Leu
 355 360 365
 Leu Val Gly His Asp Gly Trp Val Gly Leu Phe Ser Asp Ser Tyr Val
 370 375 380
 Ile Lys Glu Glu Phe Ala Ser Leu Arg Phe Phe Leu Ala Ala Ser Ile
 385 390 395 400
 Thr Leu Asp Ser Ile Gln Gly Val Leu Ser Gly Val Ala Arg Gly Cys
 405 410 415
 Gly Trp Gln Arg Leu Val Thr Val Ile Asn Leu Ala Thr Phe Tyr Leu
 420 425 430
 Ile Gly Met Pro Ile Ala Ala Phe Cys Gly Phe Lys Leu Lys Phe Tyr
 435 440 445
 Ala Lys Gly Leu Trp Ile Gly Leu Ile Cys Gly Ile Phe Cys Gln Ser

DCI-111 18 460
 450 455
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 Val Ala Thr Val

<210> 15
 <211> 507
 <212> PRT
 <213> Arabidopsis thaliana

<400> 15
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 Asp Ser Gln Ile Thr Glu Arg Ser Ser Pro Glu Ile Glu Glu Phe Leu
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 Arg Arg Arg Gly Ser Thr Val Thr Pro Arg Trp Trp Leu Lys Leu Ala
 35 40 45
 Val Trp Glu Ser Lys Leu Leu Trp Thr Leu Ser Gly Ala Ser Ile Val
 50 55 60
 Val Ser Val Leu Asn Tyr Met Leu Ser Phe Val Thr Val Met Phe Thr
 65 70 75 80
 Gly His Leu Gly Ser Leu Gln Leu Ala Gly Ala Ser Ile Ala Thr Val
 85 90 95
 Gly Ile Gln Gly Leu Ala Tyr Gly Ile Met Leu Gly Met Ala Ser Ala
 100 105 110
 Val Gln Thr Val Cys Gly Gln Ala Tyr Gly Ala Arg Gln Tyr Ser Ser
 115 120 125
 Met Gly Ile Ile Cys Gln Arg Ala Met Val Leu His Leu Ala Ala Ala
 130 135 140
 Val Phe Leu Thr Phe Leu Tyr Trp Tyr Ser Gly Pro Ile Leu Lys Thr
 145 150 155 160
 Met Gly Gln Ser Val Ala Ile Ala His Glu Gly Gln Ile Phe Ala Arg
 165 170 175
 Gly Met Ile Pro Gln Ile Tyr Ala Phe Ala Leu Ala Cys Pro Met Gln
 180 185 190
 Arg Phe Leu Gln Ala Gln Asn Ile Val Asn Pro Leu Ala Tyr Met Ser
 195 200 205
 Leu Gly Val Phe Leu Leu His Thr Leu Leu Thr Trp Leu Val Thr Asn
 210 215 220
 Val Leu Asp Phe Gly Leu Leu Gly Ala Ala Leu Ile Leu Ser Phe Ser
 225 230 235 240
 Trp Trp Leu Leu Val Ala Val Asn Gly Met Tyr Ile Leu Met Ser Pro
 245 250 255
 Asn Cys Lys Glu Thr Trp Thr Gly Phe Ser Thr Arg Ala Phe Arg Gly
 260 265 270
 Ile Trp Pro Tyr Phe Lys Leu Thr Val Ala Ser Ala Val Met Leu Cys
 275 280 285
 Leu Glu Ile Trp Tyr Asn Gln Gly Leu Val Ile Ile Ser Gly Leu Leu
 290 295 300
 Ser Asn Pro Thr Ile Ser Leu Asp Ala Ile Ser Ile Cys Met Tyr Tyr
 305 310 315 320
 Leu Asn Trp Asp Met Gln Phe Met Leu Gly Leu Ser Ala Ala Ile Ser
 325 330 335
 Val Arg Val Ser Asn Glu Leu Gly Ala Gly Asn Pro Arg Val Ala Met
 340 345 350
 Leu Ser Val Val Val Val Asn Ile Thr Thr Val Leu Ile Ser Ser Val
 355 360 365
 Leu Cys Val Ile Val Leu Val Phe Arg Val Gly Leu Ser Lys Ala Phe
 370 375 380
 Thr Ser Asp Ala Glu Val Ile Ala Ala Val Ser Asp Leu Phe Pro Leu
 385 390 395 400
 Leu Ala Val Ser Ile Phe Leu Asn Gly Ile Gln Pro Ile Leu Ser Gly
 405 410 415
 Val Ala Ile Gly Ser Gly Trp Gln Ala Val Val Ala Tyr Val Asn Leu
 420 425 430
 Val Thr Tyr Tyr Val Ile Gly Leu Pro Ile Gly Cys Val Leu Gly Phe

DCI-111 19 445

435 440 445

Lys Thr Ser Leu Gly Val Ala Gly Ile Trp Trp Gly Met Ile Ala Gly

450 455 460

Val Ile Leu Gln Thr Leu Thr Leu Ile Val Leu Thr Leu Lys Thr Asn

465 470 475 480

Trp Thr Ser Glu Val Glu Asn Ala Ala Gln Arg Val Lys Thr Ser Ala

485 490 495

Thr Glu Asn Gln Glu Met Ala Asn Ala Gly Val

500 505

<210> 16
 <211> 536
 <212> PRT
 <213> Unknown

<220>
 <223> sequence derived from yeast source.

<400> 16

Thr Leu Gln Gln Glu Ala Trp Gln Gln Gly Tyr Asp Ser His Asp Arg

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Lys Arg Leu Leu Asp Glu Glu Arg Asp Leu Leu Ile Asp Asn Lys Leu

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Leu Ser Gln His Gly Asn Gly Gly Gly Asp Ile Glu Ser His Gly His

35 40 45

Gly Gln Ala Ile Gly Pro Asp Glu Glu Glu Arg Pro Ala Glu Ile Ala

50 55 60

Asn Thr Trp Glu Ser Ala Ile Glu Ser Gly Gln Lys Ile Ser Thr Thr

65 70 75 80

Phe Lys Arg Glu Thr Gln Val Ile Thr Met Asn Ala Leu Pro Leu Ile

85 90 95

Phe Thr Phe Ile Leu Gln Asn Ser Leu Ser Leu Ala Ser Ile Phe Ser

100 105 110

Val Ser His Leu Gly Thr Lys Glu Leu Gly Gly Val Thr Leu Gly Ser

115 120 125

Met Thr Ala Asn Ile Thr Gly Leu Ala Ala Ile Gln Gly Leu Cys Thr

130 135 140

Cys Leu Asp Thr Leu Cys Ala Gln Ala Tyr Gly Ala Lys Asn Tyr His

145 150 155 160

Leu Val Gly Val Leu Val Gln Arg Cys Ala Val Ile Thr Ile Leu Ala

165 170 175

Phe Leu Pro Met Met Tyr Val Trp Phe Val Trp Ser Glu Lys Ile Leu

180 185 190

Ala Leu Met Ile Pro Glu Arg Glu Leu Cys Ala Leu Ala Asn Tyr

195 200 205

Leu Arg Val Thr Ala Phe Gly Val Pro Gly Phe Ile Leu Phe Glu Cys

210 215 220

Gly Lys Arg Phe Leu Gln Cys Gln Gly Ile Phe His Ala Ser Thr Ile

225 230 235 240

Val Leu Phe Val Cys Ala Pro Leu Asn Ala Leu Met Asn Tyr Leu Leu

245 250 255

Val Trp Asn Asp Lys Ile Gly Ile Gly Tyr Leu Gly Ala Pro Leu Ser

260 265 270

Val Val Ile Asn Tyr Trp Leu Met Thr Leu Gly Leu Leu Ile Tyr Ala

275 280 285

Met Thr Thr Lys His Lys Glu Arg Pro Leu Lys Cys Trp Asn Gly Ile

290 295 300

Ile Pro Lys Glu Gln Ala Phe Lys Asn Trp Arg Lys Met Ile Asn Leu

305 310 315 320

Ala Ile Pro Gly Val Val Met Val Glu Ala Glu Phe Leu Gly Phe Glu

325 330 335

Val Leu Thr Ile Phe Ala Ser His Leu Gly Thr Asp Ala Leu Gly Ala

340 345 350

Gln Ser Ile Val Ala Thr Ile Ala Ser Leu Ala Tyr Gln Val Pro Phe

355 360 365

Ser Ile Ser Val Ser Thr Ser Thr Arg Val Ala Asn Phe Ile Gly Ala

DCI-111 20

370					375					380					
Ser	Leu	Tyr	Asp	Ser	Cys	Met	Ile	Thr	Cys	Arg	Val	Ser	Leu	Leu	Leu
385					390					395					400
Ser	Phe	Val	Cys	Ser	Ser	Met	Asn	Met	Phe	Val	Ile	Cys	Arg	Tyr	Lys
				405					410					415	
Glu	Gln	Ile	Ala	Ser	Leu	Phe	Ser	Thr	Glu	Ser	Ala	Val	Val	Lys	Met
			420					425					430		
Val	Val	Asp	Thr	Leu	Pro	Leu	Leu	Ala	Phe	Met	Gln	Leu	Phe	Asp	Ala
		435					440					445			
Phe	Asn	Ala	Ser	Thr	Ala	Gly	Cys	Leu	Arg	Gly	Gln	Gly	Arg	Gln	Lys
	450					455					460				
Ile	Gly	Gly	Tyr	Ile	Asn	Leu	Val	Ala	Phe	Tyr	Cys	Leu	Cys	Val	Pro
465					470					475					480
Met	Ala	Tyr	Val	Leu	Ala	Phe	Leu	Tyr	His	Ile	Gly	Val	Gly	Leu	Trp
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Leu	Gly	Thr	Thr	Ser	Ala	Leu	Val	Met	Met	Ser	Val	Cys	Gln	Gly	Tyr
			500					505					510		
Ala	Val	Pro	His	Gln	Asp	Arg	Arg	Arg	Ile	Leu	Gly	Ala	Ala	Arg	Lys
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Arg	Asn	Ala	Glu	Thr	His	Thr	Ser								
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<210> 17
 <211> 456
 <212> PRT
 <213> Unknown

<220>
 <223> Sequence derived from bacterial source.

<400> 17

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Pro	Val	Leu	Ile	Ala	Ser	Val	Ala	Gln	Thr	Gly	Met	Gly	Phe	Val	Asp
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Thr	Val	Met	Ala	Gly	Gly	Val	Thr	Gln	Thr	Asp	Met	Ala	Ala	Val	Ser
		35					40					45			
Val	Ala	Ser	Ser	Ile	Trp	Leu	Pro	Ser	Ile	Leu	Phe	Gly	Ile	Gly	Leu
	50					55					60				
Leu	Met	Ala	Leu	Val	Pro	Val	Val	Ala	Gln	Leu	Asn	Gly	Ser	Ala	Arg
65					70					75					80
Arg	Glu	Lys	Ile	Pro	Phe	Glu	Ile	Gln	Gln	Gly	Val	Val	Leu	Ala	Leu
				85				90						95	
Leu	Ile	Ser	Ile	Pro	Ile	Ile	Gly	Val	Leu	Leu	Gln	Thr	Gln	Phe	Ile
			100				105						110		
Leu	Gln	Leu	Met	Asp	Val	Glu	Ala	Val	Met	Ala	Asp	Lys	Thr	Val	Gly
		115					120					125			
Tyr	Ile	His	Ala	Val	Ile	Phe	Ala	Val	Pro	Ala	Phe	Leu	Leu	Phe	Gln
	130					135					140				
Thr	Leu	Arg	Ser	Phe	Thr	Asp	Gly	Met	Ser	Leu	Thr	Lys	Pro	Ala	Met
145					150					155					160
Val	Ile	Gly	Phe	Ile	Gly	Leu	Leu	Leu	Asn	Ile	Pro	Leu	Asn	Trp	Ile
				165					170					175	
Phe	Val	Tyr	Gly	Lys	Phe	Gly	Ala	Pro	Glu	Leu	Gly	Gly	Val	Gly	Cys
			180					185					190		
Gly	Val	Ala	Thr	Thr	Ile	Val	Tyr	Trp	Val	Met	Phe	Ala	Leu	Leu	Leu
		195					200					205			
Ala	Tyr	Val	Met	Thr	Ser	Ser	Arg	Leu	Lys	Ser	Ile	Asn	Val	Phe	Gly
	210					215					220				
Glu	Tyr	His	Lys	Pro	Gln	Trp	Lys	Ala	Gln	Val	Arg	Leu	Phe	Lys	Leu
225					230					235					240
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Ala	Met	Gln	Leu	Leu	Leu	Phe	Ala	Ala	Val	Tyr	Gln	Cys	Thr	Asp	Ala			
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Val	Gln	Val	Ile	Ala	Ala	Gly	Ala	Leu	Arg	Gly	Tyr	Lys	Asp	Met	Arg			
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Cys	Gly	Val	Ala	Thr	Ala	Ala	Val	Tyr	Trp	Val	Met	Phe	Leu	Ala	Met			
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Phe	Ala	Tyr	Ala	290	Val	Glu	Ala	His	Ser	300	Gly	Gln	Ala	Tyr	Gly	Ala	Arg
Asp	Gly	Ser	Gln	310	Leu	Asp	Val	Trp	Arg	315	Ala	Ala	Cys	Arg	Gln	Ser	320
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His	Ile	Ile	Ala	340	Leu	Leu	Thr	Ser	Leu	345	Thr	Gln	Ile	Gln	350	Leu	Ala
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Cys	Tyr	Leu	Leu	370	Asp	Gly	Met	Phe	Ile	375	Gly	Ala	Thr	Arg	Ala	Thr	Glu
Met	Arg	Asn	Ser	385	Met	Ala	Val	Ala	Ala	390	Gly	Phe	Ala	Leu	Thr	Leu	400
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Val	Phe	Leu	Ala	420	Leu	Arg	Gly	Leu	Ser	425	Leu	Ala	Ala	Ile	430	Trp	Arg
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 Met
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 Gly Arg Glu Ile Leu Gly Ile Ala Phe Pro Ala Ala Leu Ala Leu Ala
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